

## REMARKS AND PETITION FOR EXTENSION

This paper responds to the Office Action dated October 13, 2011. Please extend the time in which to respond to the Office Action three months, up to and including April 13, 2011. A form PTO-2038 is enclosed which authorizes the fee required for this extension for a small entity.

### ***Response to the Examiner's Claim Objections***

In response to the Examiner's objection to claim 5, the applicant has amended the claim to remove the quotation marks surrounding the "u shaped" limitation. (The applicant was not certain if the Examiner intended to refer to parentheses or quotations in connection with the objection. Since the claims did not have parenthesis, the quotation marks were removed.)

### ***Response to the Examiner's Objection under Section 112***

In response to the Examiner's objection under Section 112 with respect to the claim limitation "surround," the applicant requests consideration of the following remarks. The Applicant observes that the Examiner has interpreted the limitation in the manner intended by the Applicant. This limitation, is related to the frame of the panels which includes the thermal break feature of the invention which, as discussed below, distinguishes the invention from the prior art. It is respectfully submitted that the term accurately describes the claimed structure. In this regard the term surround is defined as follows:

#### **surround**

*—verb (used with object)*

to enclose on all sides; encompass: *She was surrounded by reporters.*

to form an enclosure round; encircle: *A stone wall surrounds the estate.*

to enclose (a body of troops, a fort or town, etc.) so as to cut off communication or retreat.

See [www.dictionary.com](http://www.dictionary.com) (<http://dictionary.reference.com/browse/surround>)

As an example, a fence may surround a building but the fence may not necessarily extend to the same height of the building, nor would the fence necessarily extend below the surface at the same depth as a basement of the building. The building is nevertheless surrounded by the fence. Here, the claimed frame element as originally presented surrounds the panel sections but is coterminous with or offset from the panel surface so that it does not extend past the horizontal planar surface that is defined by an exterior panel. (As amended, the frame is offset so that the width of the frame is less than the width of the panel assembly. In this claimed embodiment, where two adjacent panels meet, there will be a small crevice between the panels that has a width the dimension of the two times the thickness of one frame element.) Consequently, the frame elements are not exposed beyond the exterior surface of the panel assembly and, as a result, the transfer of heat or coldness by the frame from the exterior to the interior of a structure is reduced.

### **The Section 103 Rejections**

Claims 1, 2, 5-10, 14-20 and 24 stand rejected under 35 U.S.C. § 103(a) in view of the patent to Blum (U.S. No. 5,136,822) in view of Russell (U.S. No. 3,330,084) and in further view of Timmons (U.S. No. 4,035,972).

In order to advance the prosecution of this case, the applicant has amended claims 1, 14, 18 and 25, the independent claims, to further distinguish the claimed invention from the prior art. As amended, the frame element must be *offset* or recessed from at least one of the exterior surfaces of one of the planer sheets. This embodiment is best illustrated in Fig. 31. (Please understand that this amendment is made without prejudice and applicant may subsequently seek claims of the present scope in a continuation application because Applicant's respectfully

disagree with the Examiner's position that the combination of Blum, Russell and Timmons renders the previously presented claim obvious.)

In any event, it is respectfully submitted that the Timmons patent, U.S. No. 4,035,972, which relates to furniture, does not teach or suggest the claimed structure that includes the claimed offset frame feature and, in view of the amendment, there is no teaching or suggestion from the prior art to construct a panel system as the applicant has claimed.

Timmon's invention is directed to a panel system that includes a recessed channel that is similar to applicant's structure but the Timmons disclosure does not disclose a frame structure that surrounds the panels. In the Office Action, the Examiner cites the present of a cap 78 that terminates at the peripheral edge of the panel. (There is a similar cap on the bottom of the panel that also terminates at the planar surface of the panels.) It is submitted that this cap feature is only present on the top and bottom of the panels. These caps are provided as a cosmetic feature to cover the top and bottom channels. See Col. 3, lines 54-61. In the context of Applicant's claimed invention, it would make no sense to cover the bottom channels because the bottom channel is designed to receive a strut on a bottom surface. Timmons' panels are not designed to be attached to a bottom surface -- it is a piece of furniture -- so capping the bottom is a desirable end because it results in a finished surface. There is no reason to provide a cap or finish to the bottom of the panels of the Applicant's panels, Blum's panels or Russell's panel because these panels are designed to be attached or secured to a floor member.

Furthermore, the combination would not result in a frame member that is either contiguous or offset from the planar sheet surface at the **lateral** sides of the panels. As such the combination suggested would not reach the claimed invention.

In addition, it is submitted that the rationale espoused by the Examiner to include the cap structures of Timmons to the contemplated combination made by Blum and Russell is not persuasive. The panels of Timmons are attached together by brackets or plates (such as structure 120) that are received in the channels. The top and side channels of the Timmons disclosure is not part of frame element that surrounds the panels as is claimed by the applicant.

The Russell invention includes cap 32 that has a U shaped profile and is designed to laterally retain the panels. Even if one were to replace the cap 32 with a cap that was flush, the frame itself (as best illustrated in Fig. 6,) still has a portion of the folds back in the same plane as the exterior surface of the panel. There is no suggestion reengineer and substitute the frame disclosed by Russell with the cosmetic cap disclosed by Timmons that would attach around the entire periphery of the panel or reason to make this substitution.

As best seen in Fig. 2 of Blum, the top of the “frame” member – which is not a continuous frame that surrounds the panel as the Applicant has claimed – also folds over the planar member and has a surface that extends in the same plane as the exterior panel. The bottom “frame” element 45 is more similar to that claimed by Applicant, but again, does not surround the panel and, importantly with respect to the amended claims, is not offset from the planar surface. If one applied the teachings of Timmons to Blum, one would not result in the claimed invention and, the access to the top and bottom of the panels would be impaired which would be inconsistent with the construction and assembly techniques taught.

It is further noteworthy that the Examiner contends that it would be obvious in view of the teaching of Russell to modify the panels of Blum to surround the periphery of the modules as taught by Russell to prevent the edges of the panels from chipping or breaking. First, it should be recognized that Russell already discloses such a frame. Blum has a top frame section and bottom

frame section that has a different structure than the top section (see Fig. 2). If one skilled in the art followed the teachings of Timmons or was motivated to protect the panels from chipping, the resulting structure would have a frame and cap section. As an alternative, one skilled in the art may make a frame that extends past the horizontal surface of the planer surface so that the edges of the panels would be protected. At minimum, the frame would be contiguous with the horizontal surface. Otherwise, the structure would not serve this protective function to the edge of the panels as described by the Examiner. It is submitted that the present claimed invention patentably distinguishes from these various contemplated combinations.

As discussed in the previous response, this claimed feature of the invention provides for improved thermal characteristics of the panel. In this regard, in the invention recited in claim 1, the metal frame section that is exposed to the external environment is limited to the thickness of the frame itself and therefore the exposure of metal portion of the frame to the environment is significantly reduced compared to the panels of the prior art. Providing the offset further reduces the exposure of the thermal transferring surfaces to the environment. In summary, the reduction of the exposure of the thermally conducting portions of the panel that are exposed to the external environment will improve the thermal performance of the panel.

In summary, it is submitted that in view of the amended claims, the Applicant has traversed the rejections of claims 1, 14 and 18. In addition, claim 25 is allowable because, as amended, it also incorporates this offset limitation which is neither disclosed nor suggested by the prior art.

## ***II. The elongate strut panel connection system.***

In addition to the improved thermal properties that are achieved by the offset frame , a further claimed feature that distinguishes the invention from the prior art relates to the

assembly of the respective panels into a wall. It is submitted that, as understood by the Applicant, that the previous combination of references advanced by the Examiner (Russell and Blum) do not disclose the claimed feature wherein a plurality of adjacent panels are secured together by an extended horizontal top strut that is tied or connected to a bottom strut. In connection with this feature, Russell's frame includes a rounded channel so that the lateral sides of the panel can be secured using a tie rod. As best seen in Figs. 1 the channel on the top of the panel remains empty. As best seen in Figs 1 and 3 of Russell, adjacent panels are capped on the top portion by channel plates 31 and 32 and then attached to adjacent panels using a plate 18 or 28.

***The Examiner's contention that Blum discloses an elongate strut.***

As previously argued, the applicant does not perceive that Blum's system uses an elongate strut that is received in a channel formed in a peripheral frame. The Examiner contends that the strut is disclosed in Fig. 2. However Fig. 2 is a sectional view. It is impossible to see whether there exists a strut that extends to adjacent from this view. The Applicant respectfully does not understand the Examiner's argument and respectfully requests a phone conference to discuss this issue. While the present amendment requires the bottom strut to be longer than the bottom, the previously presented claim required the top strut to span a plurality of panels. The Applicant has been unable to identify this structure in Blum.

The Applicant's understanding of Blum is different than that advanced by the Examiner. Fig. 16 depicts a flat plate that is attached to the top of the panels. Figs 13 and 14 are described as modified top and bottom channels. These channels apparently receive the panels. As previously discussed, Blum discloses using "overlapping fastening plates" to apparently connect the columns to the adjacent panels. Blum does not appear to disclose a strut, received in a

channel of a frame, and extending across a plurality of panels such as disclosed by the applicant in Fig 1. (In addition, there does not appear to a horizontal elongate strut receive in the “W shaped channels of Blum. See Blum Fig. 1.) Rather, Blum discloses a top channel plate 136 that rests on the top of the outside wall surface which is not disclosed in any further detail. See Blum column 4 lines 41-48. This plate does not appear to be received in the dual channels depicted on the top of the panels. Figs 13 shows a bottom channel plate and Fig 14 a modified top channel plate. However, it is unclear how the top channel plate is engages the panels. In any event, these plates are not the same as the frames disclosed by the applicant. In summary, the claimed panels and method of attachment are significantly different than those disclosed by Blum.

***III. The Blum reference does not disclose providing an adhesive between the panels.***

The applicant continues to respectfully disagree with the Examiner with respect to the adhesive limitation set forth in claim 1, 14, 15, 18 and 25. While polyurethane that is disclosed by Blum **may** function as an adhesive, it does not **necessarily** function as an adhesive. The Applicants polyurethane functions as adhesive because he provide such a disclosure. There is no such disclosure in Blum. For example, skateboard wheels are often made from polyurethane and they are not “adhesive.” Likewise, extruded polystyrene is not adhesive after it has been cured. “Extruded polystyrene foam begins with solid polystyrene crystals. The crystals, along with special additives and a blowing agent, are fed into an extruder. Within the extruder the mixture is combined and melted, under controlled conditions of high temperature and pressure, into a viscous plastic fluid. The hot, thick liquid is then forced in a continuous process through a die. As it emerges from the die it expands to a foam, is shaped, cooled, and trimmed to dimension. This continuous extrusion process results in a unique foam product with a uniform closed-cell

structure, a smooth continuous skin, and consistent product qualities.” See [www.diversifoam.com/xeps.htm](http://www.diversifoam.com/xeps.htm). As such, if the material is used after it has cured, then it is not functioning as an adhesive. Polyisocyanurate is currently also used in a cured state and provided in board form. Fiberglass insulation is also not an adhesive as conventionally used and understood in the building industry. In summary, it is respectfully submitted that the Blum does not disclose the use of adhesive as the Examiner contends.

In connection with Claim 6 and 7, the Applicant does not rely upon the use of gypsum board for patentability but the claims are allowable in view of the limitations recited in the respective independent claims.

The application incorporates its arguments above relating to the adhesive with respect to claims 8 and claim 15.

In connection with claims 9-12, 13, 14, 21 and 22, the Applicant does not rely upon the strip limitation or hook and loop fasteners for patentability but claims are allowable in view of the limitations recited in the respective independent claims.

In connection with claim 16 and 17 the Applicant does not rely upon the additional limitations recited for patentability but the claims are allowable in view of the limitations recited in the respective independent claim.

It is submitted that Claim 23, as amended is further allowable. The claim is directed to the feature illustrated in Figs. 36 and 38. While the use of a chase may be well known, the present invention is directed to a structural panel which requires the panel to maintain its structural strength to support forces imposed on the top of the panel. It is submitted that the provision of a chase as recited and claimed is a patentable improvement and not suggested by Blum or any of the prior art of record.

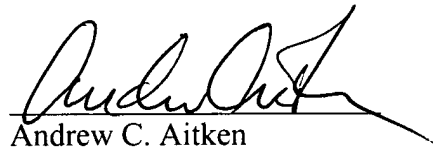


In connection with claim 24 and 26 the applicant does not rely upon the foam sleeve for patentability but claims are allowable in view of the limitations recited in the respective independent claims

**Conclusion**

Wherefore, it is submitted that each of the examiner's objections and rejections have been traversed and the case is now in condition for allowance.

Respectfully submitted,



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**Certificate of Mailing**

I hereby certify that on this 13<sup>th</sup> day of June 2011, copies of the foregoing Amendment and Remarks was sent postage prepaid to:

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